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**CAWTHRON MARLBOROUGH
ENVIRONMENT
AWARDS
2023**

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JUDGES' REPORT

WINE INDUSTRY

WITHER HILLS WINERY - RARANGI WETLANDS

INTERVIEWED

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DATE

9 November 2022

JUDGES

Matt Oliver, Andy Frost, Bev Doole

INTRODUCTION

Fifty hectares of nationally significant wetlands sit on the edge of the Wither Hills vineyard at Rarangi. Vineyard operations work around the fingers of bush and water, but staff are also focused on protecting the wetland.

Invasive weeds are being controlled and a trapping programme is starting to reduce possums, stoats and other pests. An area of vineyard too wet for grapes has been replanted with natives.



Wither Hills are working with Dr Peter Meihana, Senior lecturer in Māori history and Rangitāne Trustee; and Ruihana Lewis Smith, Te Pou Hāpai Taiao for Ngāti Kuia; in the hope of building up a platform for further engagement with tangata whenua and their relationship with the wetlands.

All staff are involved in an annual planting day and the restoration project is something they take pride in as they see the bush and native birds returning.

The judges were impressed by the dedicated work to look after the wetlands and see scope for more corporate support for these efforts.

GENERAL INFORMATION

Wither Hills is owned by Lion, New Zealand's largest alcoholic drinks company. Their 250 ha property at Rarangi comprises 150 ha in grapes, 50ha in headlands and bush, and the remaining 50 ha is wetlands.

It is part of a complex of rare beach ridge wetlands, stretching from the Wairau Bar to Rarangi. Humps and swales have been sculpted by the sea over thousands of years and filled up with sediment where the vines now grow.

The wetlands are registered with Marlborough District Council as a Significant Natural Area and supports native plant species including kahikatea, flax, manuka, muehlenbeckia, cabbage trees, kowhai, toetoe, coprosma and swamp maire. The bush in turn provides habitat for native birds including tui, fantail, bellbird, pukeko, ruru, weka and shining cuckoo.

A nationally endangered creeping herb, *Mazus novaezeelandiae*, was found about 15 years ago during an ecological survey of the wetlands. Unfortunately, awareness and care dropped off as staff moved on, but an expedition in 2022 rediscovered it. The 2m patch of *Mazus* is now recorded on a map and fenced off for protection.

There are four key areas of work with the wetlands:

- **Weed control:** A concerted drill and fill poisoning programme has controlled the invasive willows but old man's beard remains the toughest challenge. Vines are cut at the stump and herbicide applied. Broom and gorse are managed by mowing and some spraying, but are also used as a nursery crop for young natives, rather than trying to eradicate. There is constant vigilance for wilding pines and the spread of old man's beard from the neighbouring forestry block.
- **Pest control:** A programme began in 2018 to tackle the wide range of animal pests including pigs, possums, stoats, rats, weasels, cats and hedgehogs. A24 and DOC 200 traps are used, and game cameras help track pests and improve trap placement, (eg, mount at one metre height to avoid catching weka). There is a systematic approach to locate each trap with GPS and record catches on a spreadsheet. Some predator traps have been donated by Honey company J Bush and Sons, who have had hives in the wetland area for 80 years. Staff member Tim Collingwood also volunteers his time outside work hours, particularly for possum trapping. 104 possums were caught in 2021, and 88 caught in 2022 up to October. The fur is plucked and sold, while a healthy population of vineyard harrier hawks help clean up the carcasses. It is time-consuming work but is rewarded by the recovery in bird life.
- **New native planting:** Certain parts of the vineyard have been under-performing due to the boggy nature of the land. Wither Hills have removed 5 ha of grapes because of difficult growing and harvesting conditions. This is now being planted in natives to create a corridor with Hinepango wetland to the south. Stage 1 saw 1000 flax bushes planted.



Stage 2, in September 2022, added another 4000 plants including flax, carex secta, cabbage tree and muehlenbeckia. Funding for plants and labour came from the Nature Conservancy and Jobs for Nature, and 60 Wither Hills staff were involved in the annual Planting Day. In another initiative, Tim is collecting kahikatea, manuka, flax and five finger seed from the established wetland and propagating them for future plantings. This will free up budget usually spent on plants to be diverted into weed and pest control.

- Connecting with iwi: The wetland project team is working to find out more about the history and cultural value of the land and wetlands. They have connected with mana whenua to learn more through oral history, maps and drawings of old pa sites. The area was valued for growing kumara and other food, as well as freshwater mahinga kai. Peter Meihana and Ruihana Smith joined the annual planting day to talk about Māoritanga and the connection to the wetland.

There is now a capex line in the vineyard budget for weed control, traps and native seedlings, and the project is a good fit with Lion's Toitu CarbonZero and ISO14001 (environmental management) certification. Environmental benefits of the wetland include:

- Storing carbon and reducing emissions to help mitigate the effects of climate change.
- Improving water quality by filtering out sediment, nitrates and chemicals.
- Absorbing water during floods and releasing during periods of drought.
- Providing habitat and biodiversity amid the vineyard monoculture.

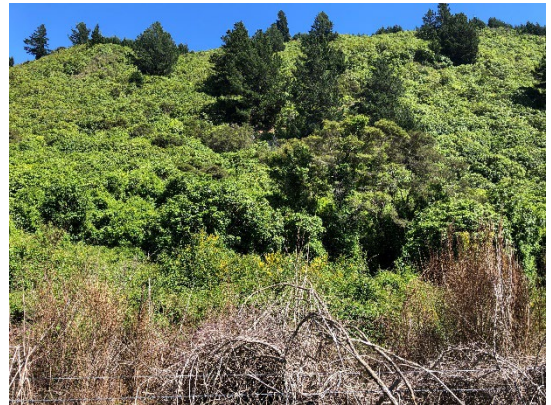
When Wither Hills won the Marlborough Environment Awards Habitat Enhancement category in 2011 the wetland project was focused on weed control. Since then, there has been significant progress in trapping, planting and engaging with iwi.

THE JUDGES WERE IMPRESSED BY:

- The team's enthusiasm, commitment and keenness to learn. They are holding their own with the project, despite serious weed and pest issues.
- Understanding their limits and not biting off more than they can chew, eg, focus on managing old man's beard rather than trying to eradicate. Leaving broom as a nitrogen-fixing and nursery plant.
- The decision to pull out vines where the soil is too soggy and replant with natives. This will improve biodiversity and connect the wetlands, and shows a commitment to the environment rather than leaving as grass.
- Engagement with all Wither Hills staff through the Rarangi Wetlands Newsletter and annual planting day. This is raising awareness, building enthusiasm and connecting with others who have an interest in the wetland, including ecologists and donors.
- The genuine engagement with iwi and respecting the cultural history and mana of the wetlands.
- The growing wairua (life force) and increase in birdlife that comes with the recovery of the wetland.

PROBLEMS AND HOW THEY HAVE BEEN TACKLED

- Old man's beard is a serious and ongoing issue due to the seed source from the nearby hills. Eradication is too hard so the focus is on spraying buffer zones to keep on top of spread. Biological control may be an option. Wilding pines are a similar problem. Again, the emphasis is on creating a buffer zone.
- The hills are also home to pigs, possums, deer and other pests coming down from the bush and into the wetland. The trapping programme is making progress in controlling numbers. Hunters are also given access to shoot deer, pigs and goats.
- Willows spread, clog up the wetland, and crowd out regenerating natives. Spraying or drilling and filling with herbicide is an ongoing programme. Jobs for Nature funding was used for latest the poisoning programme and greater progress would be made if the neighbouring vineyard company also took action.
- Staff turnover, loss of knowledge and momentum has been an issue in the past. While there is a strong team in place at the moment, it is a risk to rely on keen individuals. A more sustainable staffing option needs to be considered.



SUMMARY

Being responsible for 50 ha of rare and significant wetlands and providing serious weed and pest control is a daunting prospect, and the judges applaud the project team for their passion, commitment and care.

The ongoing restoration of the wetland and the environmental benefits that come with that are testimony to the work that is being done and deserves further support.

The Wither Hills Rarangi wetland is a unique addition to the vineyard, creating a pleasant work environment and point of difference in Marlborough winegrowing.

SUGGESTIONS

- Build a case with head office to employ a wetland ranger rather than the work being an add-on for keen staff members. A dedicated ranger would provide oversight, help develop long-term policy and provide continuity.
- Raise awareness and support for the wetland restoration project by arranging a visit by senior executives. Use the Awards video and judges' report to highlight environmental benefits, alignment with Toitu CarbonZero certification, marketing point of difference and team building.
- The wetland project has huge potential to demonstrate Lion's corporate social responsibility. A tiny slice of Lion profit to look after the wetland would ensure the future of the project and create a legacy for the company and community.
- Check whether carbon sequestration in the wetlands is calculated as part of Lion's Toitu CarbonZero certification. Further information on the role of wetlands and climate change: https://www.ramsar.org/sites/default/files/documents/library/bn10_restoration_climate_change_e.pdf

- Produce a special edition Rarangi wine featuring the wetland project, with a percentage of sale of each bottle going into the wetland budget.
- Create a drainage policy to conserve fish habitat, eg, undertake a fish survey; dig no deeper than groundwater level; plant one side of drain to provide shade and food source for fish from insect drop. Contact: India Hamill, MDC Environmental Protection Officer, india.hamill@marlborough.govt.nz
- Seek Council pest control funding - applications for Working for Nature/Mahi mō te Taiao funding open in April 2023
<https://www.marlborough.govt.nz/our-community/grants-and-awards/working-for-naturemahi-mo-te-taiao>
- Landcare Research in Lincoln is developing biological control for old man's beard. Consider offering the wetlands site as a trial area. Contact: Arnaud Cartier
<https://www.landcareresearch.co.nz/publications/weed-biocontrol/weed-biocontrol-articles/old-mans-beard-agents-show-promise/>
- Approach the Marlborough Sounds Restoration Trust about wilding pine control. Their co-ordinator Deleece Augustyn lives in Rarangi, deleece@soundsrestoration.org.nz
- Investigate getting a QEII covenant to protect the wetlands and provide access to expertise and resources. Marlborough QEII representative: Tom Stein, tstein@qeii.org.nz Ph 03 574 2978. <https://qeiiinternationaltrust.org.nz/about-us/>
- Seek DOC help to organise a bird count – what species and how many - to get a baseline for the future. This could be a theme for an annual staff day. Contact Wairau/Renwick DOC office, renwick@doc.govt.nz Ph 03 572 9100
- Invite the neighbouring forestry company and Constellation for a wetland visit and pizza to discuss ways to work together on willow and weed control and fish passage along drains.
- Further reading as you continue your journey with iwi – a handbook on the importance of wetland values from a cultural perspective:
https://www.landcareresearch.co.nz/uploads/public/Publications/Te-reo-o-te-repo/Te_Reo_o_Te_Repo_Voice_of_the_Wetland_complete_book.pdf
- The Rarangi wetland would have been a powerful addition to Lion's entry in the 2022 Sustainable Business Awards: <https://sustainable.org.nz/sustainable-business-awards/award-finalists-2022/lion-2022-awards-finalist/>